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32692	7590	06/02/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY				
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ST. PAUL, MN 55133-3427				
			ART UNIT	PAPER NUMBER
			1771	

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 0526

Application Number: 10/066,990  
Filing Date: February 04, 2002  
Appellant(s): KOBE ET AL.

**MAILED**

**JUN 01 2004**

**GROUP 1700**

\_\_\_\_\_  
Daniel R. Pastirik  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 04/05/04.

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**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

Appellant's brief includes a statement that there are no appeals and interferences.

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

Appellant's brief includes a statement that appealed claims stand or fall together.

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

6,139,998	MOCHIZUKI et al	10-2000
6,103,152	GEHLSSEN et al	08-2000
5,851,663	PARSONS et al	12-1998

**4,751,269**

**BONK et al**

**06-1988**

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***I. Claims 1-2, 4-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663).***

Gehlsen teaches an adhesive foam tape having every element set out in the claims except an antimony-free fire retardant in the foam layer (Hot melt composition 1, examples 1-5). Gehlsen teaches the adhesive layer formulated without fire retardant and disposed on at least one surface of the foam layer sheet (column 14, lines 45-60). Gehlsen teaches the adhesive tape having a split strength, a peel adhesion on stainless steel and a static shear strength within the claimed ranges (abstract and table 1). Gehlsen does not specifically disclose the antimony-free fire retardant in the foam layer. Parsons, however, teaches an adhesive foam tape comprising an antimony-free flameproofing agent such as ammonium polyphosphate in an amount of 30 % by weight within the claimed range (column 14, lines 40-45) to achieve a flameproofing effect and environmental safety (column 3, lines 1-12, and 58-60). This is important to the expectation of successfully practicing the invention of Gehlsen and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in the foam layer motivated by the desire to achieve a flameproofing effect and environmental safety.

With regard to claim 6, Gehlsen discloses the adhesive tape having a thickness greater than 1 mm (column 14, line 23). Since the thickness parameter is recognized as a result-effective variable, differences in thickness will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. Varying the thickness of the foam tape would have been recognized by one skilled in the art to impart the strength of the foam layer and as well as to improve the adhesion of the foam layer and the adhesive layer. This is in line with In re Aller, 105 USPQ 233 which holds that discovering the optimum or workable ranges involves only routine skill in the art. Gehlsen does not specifically disclose the antimony-free fire retardant in the adhesive layer. Parsons, however, teaches an adhesive tape comprising an antimony-free flameproofing agent such as ammonium polyphosphate in an amount of 30 % by weight within the claimed range (column 14, lines 40-45) to achieve a flameproofing effect and environmental safety (column 3, lines 1-12, and 58-60). This is important to the expectation of successfully practicing the invention of Gehlsen and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in the foam layer motivated by the desire to achieve a flameproofing effect and environmental safety.

With regard to claim 9, it appears that Parsons uses the same antimony-free intumescent fire retardant which is available under the trade name EXOLIT IFR-23 as Appellant (Parsons, column 2, lines 60-65 vs. Appellant's specification, page 11, line18-

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19). Appellant states that intumescent fire retardants generally comprise an acid source, a char former and a blowing agent (Appellant's specification, page 4, lines 17-19). Therefore, it is not seen that the intumescent fire retardant of Parsons would have a composition different than Appellant's intumescent fire retardant when the identical material is used.

With regard to claims 10 and 11, Gehlsen does not specifically disclose the flame retardant synergists in the foam sheet. Parsons teaches a foamed adhesive composition comprising the flame retardant synergists to obtain a reduction in the tendency to produce burning drips during combustion (column 2, lines 61-65). This is important to the expectation of successfully practicing the invention of Gehlsen and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the flame retardant synergists in the foam sheet motivated by the desire to obtain a reduction in the tendency to produce burning drips during combustion.

With regard to claim 15, since the article of Gehlsen modified by Parsons is structurally the same and made from the same materials as that of the present invention, it is the examiner's position that the article of Gehlsen modified by Parsons would inherently pass one of the tests as set forth in the claims. Like material has like property. This is in line with In re Spada, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties.

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***II. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663) as applied to claim 1 above, further in view of Bonk et al (US 4,751,269).***

The combination of Gehlsen and Parsons fails to teach microfibers in an adhesive layer. Bonk, however, teaches an adhesive composition comprising microfibers as a reinforcing filler to increase strength and flexibility of the flame-retardant article (column 6, lines 1-5). This is important to the expectation of successfully practicing the invention of Gehlsen and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ microfibers in the adhesive layer motivated by the desire to increase strength and flexibility of the flame-retardant article.

***III. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663), as applied to claim 1 above, as evidenced by Mochizuki et al (US 6,139,998).***

Parsons teaches the composition comprising a combination of non-halogen intumescent flame retardant (NHIFR) with a brominated additive to provide a synergistic effect in flammability performance of the composition (column 2, lines 35-40, and 50-54). It is known in the art that tris(bromoneopentyl) phosphate is a brominated fire retardant (see Mochizuki, US 6,139,998, column 8, line 58 et seq.). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in the adhesive tape motivated by the desire to achieve a flameproofing effect and environmental safety.

**(11) Response to Argument****Examiner's comment on Appellant's issue I.**

Appellant argues that Gehlsen does not teach or suggest the inclusion of fire retardant in the foam layer in combination with an adhesive layer formulated without fire retardant. The examiner disagrees. Gehlsen does disclose the inclusion of fire retardant in the foam layer in combination with an adhesive layer formulated without fire retardant (hot melt composition 1, examples 1-5). Gehlsen disclose the use of fire retardant in the foam layer (column 8, line 51). Appellant argues that Gehlsen discloses a laundry list of potential additives including "fire retardants" in the disclosed foam article. Therefore, Gehlsen provides no motivation to the skilled artisan to choose any one item from Gehlsen's laundry list of additives to formulate the fire retardant articles of the present invention. The examiner disagrees. The teaching of Gehlsen would give the skilled artisans the tools necessary to conclude that the use of fire retardants in the foam layer of the adhesive tape is known and obvious. Gehlsen does not specifically disclose what fire retardants are suitable. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the use of appropriate fire retardant for the adhesive foam tapes. Parsons teaches an adhesive foam tape comprising an antimony-free flameproofing agent such as ammonium polyphosphate to achieve a flameproofing effect and environmental safety (column 3, lines 1-12, and 58-60). This is important to the expectation of successfully practicing the invention of Gehlsen and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in



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the foam layer motivated by the desire to achieve a flameproofing effect and environmental safety. Appellant goes on and states that Parson does not make up for the deficiencies of Gehlsen because Parsons does not suggest a flame retardant article comprising an expanded polymeric foam material with expanded polymeric microspheres and antimony-free fire retardant in combination with an adhesive layer formulated without fire retardant. There is no need for Parsons to address all the cited features except for the antimony-free fire retardant being used in the adhesive tapes since these features are already taught in the Gehlsen reference. Appellant argues that in contrast to the articles described by Gehlsen, the present invention provides **fire retardant** foam articles containing expanded, combustible polymeric microspheres. The arguments are not understood because Gehlsen discloses the use of expanded, combustible polymeric microspheres in the foam adhesive tape too. Appellant goes on that the foam articles of the invention can be made to be fire retardant even though they include expanded and combustible microspheres and a combustible skin adhesive layer associated with the foam layer. The arguments are not commensurate in scope with the claims since the combustible ingredients of the skin adhesive are not presently claimed.

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**Examiner's comment on Appellant's issue II and III.**

Appellant's reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
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HV

May 27, 2004

Conferees

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